

REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Amendments to Claims

Claims 1 and 4 have been amended to recite that the deep trench communicates with only two different active areas and is respectively connected to two adjacent bit lines so as to measure a leakage current between the two different active areas. Support for this amendment is found on page 2, lines 20-23 of the original specification, which state that “*By means of such a structure, GIDL current and junction leakage current can be easily measured through the gate 12.*” The amendment therefore does not involve “new matter.”

2. Rejection of Claims 1, 2, 4, and 5 Under 35 USC §102(b) in view of U.S. Patent No. 6,198,151 (Wada)

This rejection is respectfully traversed on the grounds that the Wada patent fails to disclose or suggest a deep trench structure, as claimed, in which the deep trench communicates with only two different active areas respectively connected to two adjacent bit lines, as claimed, *for measuring leakage current between the two different active areas*.

Instead, the Wada patent discloses a memory cell comprising a transistor Tr1 having two transistors Tr11 and Tr12 serving as access transistors, and a deep trench *capacitor* C1 connected to transistors Tr11 and Tr12, respectively, the placement of the capacitor in the trench having the effect of increasing an integration density of storage elements of the semiconductor and maintaining stable operation when the power supply voltage is lowered, as explained in col. 2, lines 3-7 of the Wada patent. The deep trench capacitor of Wada is not and cannot be used for measurement of leakage current between active areas, as claimed, but rather serves as the storage device for the memory cell. Use of the trench for a purpose other than to contain the memory cell capacitor would render the device of Wada inoperative.

Serial Number 10/718,666

Accordingly, the Wada patent does not anticipate or suggest the claimed invention, and withdrawal of the rejection of claims 1, 2, 4, and 5 is respectfully requested.

Having thus overcome each of the rejections made in the Official Action, expedited passage of the application to issue is requested.

Respectfully submitted,

BACON & THOMAS, PLLC



Date: July 11, 2006

By: BENJAMIN E. URCIA
Registration No. 33,805

BACON & THOMAS, PLLC
625 Slaters Lane, 4th Floor
Alexandria, Virginia 22314

Telephone: (703) 683-0500

NWB:S:\Producer\ben\Pending A...HDC\HANG 718666\w04.wpd